DOCUMENT RESUME

ED 127 420 CE 007 021

AUTHOR Hemphill, John M., Jr.; Yoder, Dale

TITLE Management Auditing. Evaluation of the Marine Corps Task Analysis Program. Technical Report No. 5.
INSTITUTION California State Univ. Foundation, Los Angeles.
SPONS AGENCY Office of Naval Research, Arlington, Va. Personnel and Training Research Programs Office.
PUB DATE Sep 75
CONTRACT N00014-74-A-0436-0001
NOTE 32p.; For related documents see CE 007 018, CE 007 017, CE 007 147, CE 007 662, and CE 006 899

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Administrative Organization; Efficiency; Evaluation; Management; *Military Personnel; *Military Training; *Organizational Effectiveness; Organizations (Groups)
IDENTIFIERS *Management Auditing; *Marine Corps; Marine Corps Office of Manpower Utilization

ABSTRACT

The management audit is described for possible application as an extension of the mission of the Office of Manpower Utilization (OMU) of the U.S. Marine Corps. The present mission of OMU is viewed as a manpower research program to conduct task analysis of Marine Corps occupational fields. Purpose of the analyses is to improve the functional areas of classification, assignment, training, grade and military occupational specialty structure, job requirements, and job validation. Major topics in this report are purpose and scope of management auditing, overview of the management audit process, comparison of the management audit with task analysis, and implications of the management audit approach for OMU. The report suggests that significant advantages could be gained by expanding the mission of the OMU so that its staff could offer management auditing service on an optional basis to occupational fields that request such assistance. Annotations of four references on management auditing are included in a selected bibliography. (Author/WL)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED127420

MANAGEMENT AUDITING

John M. Hemphill, Jr. and Dale Yoder

Technical Report No. 5

EVALUATION OF THE MARINE CORPS TASK ANALYSIS PROGRAM

A Research Project Supported By

Commandant of the Marine Corps (Code RD)

And Monitored By

Personnel and Training Research Programs
Psychological Sciences Division
Office of Naval Research
Contract No. N00014-74-A-0436-0001
NR 151-370

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Approved for public release; distribution unlimited.
Reproduction in whole or in part is permitted for any purpose of the United States Government.

2

California State University, Los Angeles Foundation

September, 1975

CE 007 021

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

ED127420

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Technical Report No. 5	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Management Auditing		5. TYPE OF REPORT & PERIOD COVERED Technical Report 6. PERFORMING ORG. REPORT NUMBER TA Technical Report No. 5
7. AUTHOR(s) John M. Hemphill, Jr. and Dale Yoder		8. CONTRACT OR GRANT NUMBER(s) N00014-74-A-0436-0001
9. PERFORMING ORGANIZATION NAME AND ADDRESS California State University, Los Angeles Foundation 5151 State University Drive Los Angeles, Calif. 90032		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS PE 61153N, Proj. RR 042-04 TA RR 042-04-02 NR 151-370
11. CONTROLLING OFFICE NAME AND ADDRESS Personnel and Training Research Programs Office of Naval Research (Code 458) Arlington, Virginia 22217		12. REPORT DATE September, 1975 13. NUMBER OF PAGES 21
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited. Reproduction in whole or in part is permitted for any purpose of the United States Government.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

This research was sponsored jointly by the Commandant of the Marine Corps (Code RD) and the Office of Naval Research.

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Management Audit
Organization Audit
Organizational Appraisal
Organizational Diagnosis
Organizational Evaluation

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The Management Audit is described for possible application as an extension of the mission of the Office of Manpower Utilization (OMU), HQ, USMC. The present mission of OMU is viewed as a manpower research program to conduct Task Analysis of Marine Corps Occupational Fields. Purpose of the analyses is to improve the functional areas of classification, assignment, training, grade and MOS structure, job requirements, and job validation. Major topics in this report are purpose and scope of management auditing, overview of the

CE00702

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102 LF 014 6601

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

management audit process, comparison of the management audit with task analysis, and implications of the management audit approach for OMU. Annotations of significant references on management auditing are included in a selected bibliography.

SUMMARY

This Technical Report differs from others in this series in that it does not focus on training, critical appraisals, or operational problems. Instead, it ventures to suggest that significant advantages could be gained by expanding the mission of the Office of Manpower Utilization (OMU), HQ, USMC. In this Report, the research staff notes that OMU holds major responsibility for Marine Corps research in human resources management. It suggests that OMU's services and contributions might be increased by broadening OMU's assignment so that its staff could offer a management auditing service on an optional basis to Occupational Fields that request such assistance.

The report begins by pointing to the fact that Task Analysis is one major segment in such an inclusive management audit. Section I describes typical management audit coverage, including critical evaluation of an organization's current policies and the programs developed to implement them, organizational structure, planning processes, coordination of functions, manager capabilities and management styles, delegation, and specific operating practices. Attention is directed to usual areas of inquiry as well as to questions raised in the auditing of management climate and overall management health in the organization.

Section I concludes with an assessment of advantages and problems to be anticipated if this expansion of the OMU mission should be undertaken.

Section II of the report provides an annotated bibliography on management auditing, and Section III lists additional books and periodical references for those who wish to probe more deeply and thus review and evaluate the potential benefits to be gained through such an expanded assignment to OMU.

TABLE OF CONTENTS

SECTION		PAGE
I	A BRIEF DESCRIPTION OF THE MANAGEMENT AUDIT AND DISCUSSION OF IMPLICATIONS FOR THE OFFICE OF MANPOWER UTILIZATION HQ, UNITED STATES MARINE CORPS	1
	INTRODUCTION	1
	PURPOSE AND SCOPE OF MANAGEMENT AUDITING	2
	OVERVIEW OF STUDY METHODS AND RESULTS	4
	COMPARISON OF THE MANAGEMENT AUDIT WITH TASK ANALYSIS	5
	IMPLICATIONS OF THE MANAGEMENT AUDIT APPROACH FOR OMU	7
	SUMMARY	9
II	ANNOTATIONS FROM SELECTED LITERATURE ON MANAGEMENT AUDITING	11
	A. Detailed Annotation, by chapter	11
	B. Brief Annotations	18
III	ADDITIONAL SELECTED REFERENCES	20
	A. Books	20
	B. Periodicals	21

SECTION I

A BRIEF DESCRIPTION OF THE MANAGEMENT AUDIT AND DISCUSSION OF IMPLICATIONS FOR THE OFFICE OF MANPOWER UTILIZATION HQ, UNITED STATES MARINE CORPS

INTRODUCTION

At present, the primary mission of the Office of Manpower Utilization (OMU) is to perform task analysis, defined as the identification, collection, collation, and analysis of job data. The products of task analysis are used to improve the functional areas of classification, assignment, training, grade and MOS structure, job requirements, and job validation.

The purpose of this paper is to describe management auditing as a possible extension of the present mission of OMU to include management, organization, and other variables described in this report. As will be noted, some elements of management auditing are presently included in task analysis.

Inasmuch as OMU represents the only personnel research arm of the Marine Corps, future expansion of the scope of its research may be appropriate. Management auditing represents one of several possible expansions that might be considered.

The specific purposes of this report are to:

1. Briefly describe the management auditing approach and point out some of its possibilities for development and application by OMU;
2. Provide additional background through an annotated bibliography;
3. Identify other references for more information on the subject.

This paper does not precisely identify specific ways the management audit could be developed and used by OMU. As a working paper, it is suggestive rather than prescriptive.

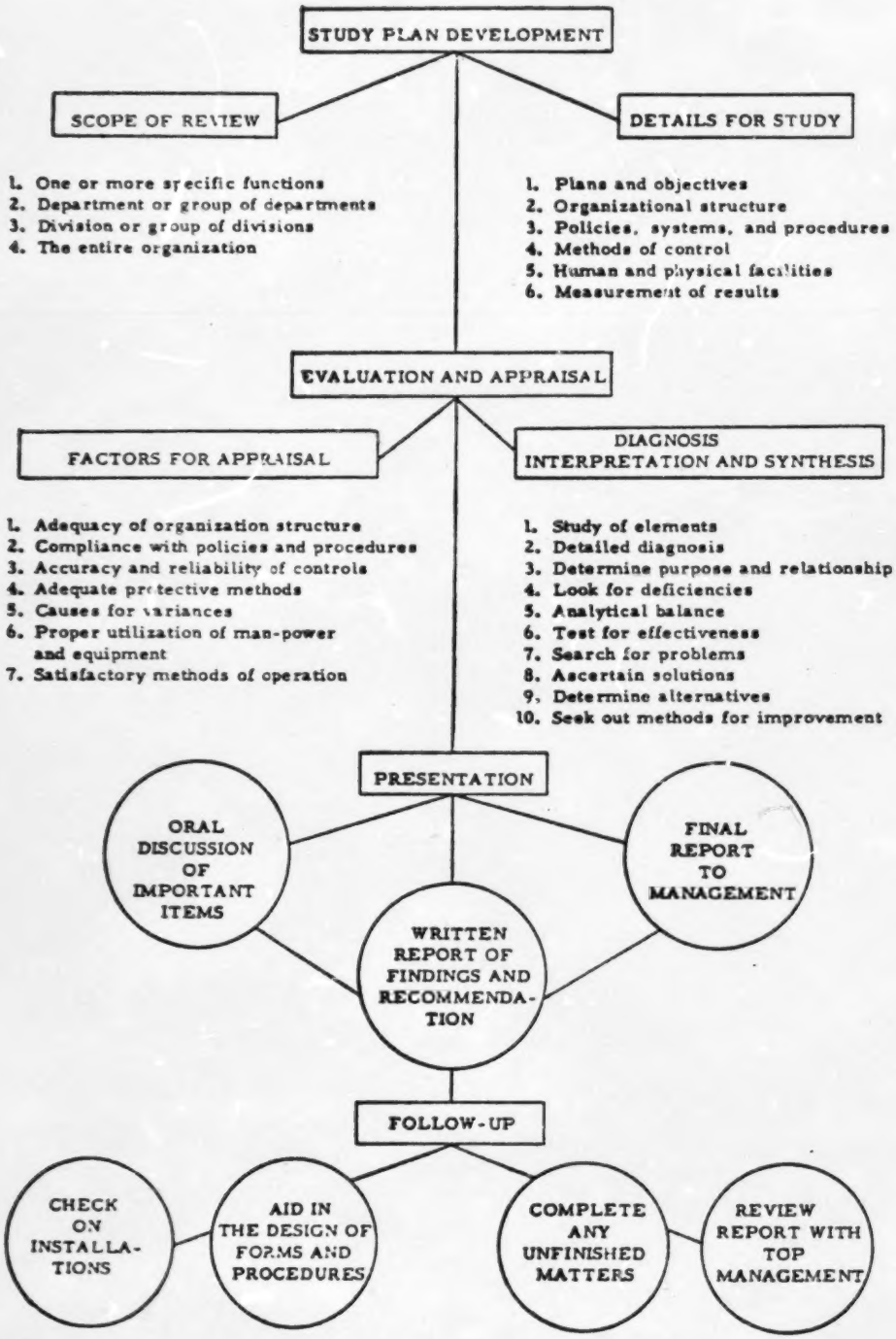
PURPOSE AND SCOPE OF MANAGEMENT AUDITING

Management auditing comprises a comprehensive and a thorough study of an organization. It examines policies, organization structure, operating methods, personnel practices, morale, and physical facilities. A management audit is an examination of conditions and a diagnosis of deficiencies, and it provides recommendations for correcting them. It is basically constructive in its conception and objective in its approach. It has but one purpose--to assist management in improving the efficiency and effectiveness of an organization.

Figure 1 presents a schematic view of management auditing. Although definitions differ from author to author, usually the basic components are study plan development, evaluation and appraisal, presentation or review, and follow-up. The comprehensiveness of the approach can be seen by referring to the specific points under scope of review, details for study, factors for appraisal, and diagnosis, interpretation and synthesis. It should be clear, however, that the management audit probes more deeply than a casual inspection that is designed simply to check on compliance with established procedures.

FIGURE 1

OVERVIEW OF THE MANAGEMENT AUDIT PROCESS


STUDY PLAN DEVELOPMENT
SCOPE OF REVIEW
DETAILS FOR STUDY
1. One or more specific functions
2. Department or group of departments
3. Division or group of divisions
4. The entire organization
1. Plans and objectives
2. Organizational structure
3. Policies, systems, and procedures
4. Methods of control
5. Human and physical facilities
6. Measurement of results
EVALUATION AND APPRAISAL
FACTORS FOR APPRAISAL
DIAGNOSIS INTERPRETATION AND SYNTHESIS
1. Adequacy of organization structure
2. Compliance with policies and procedures
3. Accuracy and reliability of controls
4. Adequate protective methods
5. Causes for variances
6. Proper utilization of man-power and equipment
7. Satisfactory methods of operation
1. Study of elements
2. Detailed diagnosis
3. Determine purpose and relationship
4. Look for deficiencies
5. Analytical balance
6. Test for effectiveness
7. Search for problems
8. Ascertain solutions
9. Determine alternatives
10. Seek out methods for improvement
PRESENTATION
ORAL DISCUSSION OF IMPORTANT ITEMS
FINAL REPORT TO MANAGEMENT
WRITTEN REPORT OF FINDINGS AND RECOMMENDATION
FOLLOW-UP
CHECK ON INSTALLATIONS
AID IN THE DESIGN OF FORMS AND PROCEDURES
COMPLETE ANY UNFINISHED MATTERS
REVIEW REPORT WITH TOP MANAGEMENT

Source: Adopted from William P. Leonard, The Management Audit (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1962).

OVERVIEW OF STUDY METHODS AND RESULTS

To assure success of the audit, it is important to have complete understanding, approval, and support by top management of the organization along with the use of qualified personnel to perform the work. Generally, those who conduct management audits are skilled in the techniques of analysis and research and trained to be alert for ways to improve upon what they find.

Management audit analysts examine the policies under which the operations of the organization are conducted. They examine the organization structure and study each unit in detail to gain a thorough understanding of its mission and functions. They look into operating methods. With the constant aim of improvement, each important step is studied in relation to other steps. The analysts give consideration to the organization's human resources, and objectively review possible improvements in personnel practices. The organization's physical facilities and equipment utilization also come under close scrutiny.

The net result is a diagnosis of the present state of health of the organization, with attention focused on what needs improvement, and with clear-cut recommendations for implementing improvements. Unlike the accounting audit which is concerned with past transactions and present condition, the management audit studies the present and looks to the future.

The annotated bibliography in Section II provides more

discussion of management auditing. Included is a chapter-by-chapter summary of one of the classic volumes on the subject by William P. Leonard.

COMPARISON OF THE MANAGEMENT AUDIT WITH TASK ANALYSIS

In collecting job data, task analysis asks the following basic questions:

a. What does the Marine really do?

b. Why does he perform his job?

c. How does he perform his job?

d. What skill attributes and levels does he require to perform his job?

For the most part, descriptive data are solicited and used in order to develop realistic structuring of jobs, duties, and tasks.

The management audit would involve asking the following kinds of questions:

Organization structure

How much structure is appropriate for this organization?

Which functions need to be coordinated?--What means should be used to achieve coordination?

Is the structure designed to make specific accountability Possible?

Is the decision-making process designed so that the quality of decisions can be improved?

What organizational relationship exists or should be established among subfunctions?

Has the organization been designed to make the most effective use of the talents available?

Management

How well are management capabilities matched with position requirements?

Is the need for conceptualizing skill recognized adequately at each management level?

Are experience specifications stated in terms of time or in terms of meaningful exposure?

What basic manager attitudes are required for key positons?

What management style will create the attitudes and produce the performance critical to this unit?

How should managers communicate with employees regarding performance?

Are performance reviews fully utilized for development and motivational purposes?

Resource allocation and management

Do managers manage operations instead of resources?

What resources limit the organization's ability to achieve goals?

Has the potential productivity of all resource users been identified?

The scope of the management audit is further illustrated by Leonard's checklist approach. He presents a number of

searching questions the management audit should explore. The following are examples of such questions:

1. Plans and objectives: Have definite plans and objectives been established?
2. Organization structure: Is there any overlapping or duplication of functions?
3. Policies, systems, and procedures: Are policies positive, clear, understandable, and widely known throughout the unit?
4. Personnel: Is employee training adequate for jobs assigned?
5. Layout and physical equipment: Is the physical plant designed to provide maximum utilization of space and efficient work areas?
6. Operations and methods of control: What consideration has been given to the adequacy, clarity, and promptness of internal and external communications?

Two basic differences between task analysis and the management audit are evident from the above discussion. First, the management audit is much broader in scope, but includes such basic task analysis concerns as overlapping or duplicating functions and training requirements. Second, the management audit is oriented more towards evaluation or assessment than the present task analysis process.

IMPLICATIONS OF THE MANAGEMENT AUDIT APPROACH FOR OMU

An important implication is that the present mission of OMU would be greatly expanded if the management audit approach

were adopted. Even though the historical success of OMU is probably attributable in part to its stress on describing and reporting rather than on evaluation of proficiency or performance, management auditing would feature both description and evaluation.

If OMU were to offer management auditing to Marine Corps units a critical consideration would be how to structure, staff, and communicate its expanded mission so that "clients" of OMU would view the results of OMU research as enabling them to improve efficiency and effectiveness of their unit or organization. One approach might be to organize and position OMU as an internal technical resource available on request to assist client OFs in enhancing productivity or performance through the management audit. On request from an OF, OMU personnel could be assigned as temporary staff, conduct the management audit, and report to appropriate members of top management of the OF under study. Data, findings, and recommendations could be treated as proprietary information and not generally available for disclosure outside the subject OF. In this way, OMU could perform enabling functions for OFs to help improve organizational performance, but without the concerns about higher command reactions that are associated with an Inspector General's review.

One alternative is to retain task analysis as a basic mission of OMU, and to consider management auditing as a separate, supplemental mission. In addition to continuing to perform task analysis as it has traditionally been done,

OMU could provide technical assistance through management auditing as outlined above.

If management auditing were incorporated into an expanded mission of OMU, an important requirement would be inclusion on the staff of highly skilled analysts in organization, management, and personnel research. One approach could be to staff OMU with Marines specifically trained in applied research of this nature. As a minimum, they should possess a baccalaureate degree although a master's degree level would seem more desirable. Another approach might be to have OMU establish "on-call arrangements" with outside consultants skilled in management auditing. The consultant team, in conjunction with OMU personnel, could provide the technical resource capability.

SUMMARY

The management auditing approach, in general, includes evaluating the entire management and operational systems of an organization, developing recommendations, and assisting management in implementing planned changes to improve organization performance. As noted, present task analysis can be considered a sub-set of management auditing.

The methodology of the management audit cannot be characterized as a highly refined, thoroughly objective scientific effort. As can be seen in the annotations (Section II), each author presents a somewhat distinctive approach. Further, consultants and consulting firms that provide the service of management auditing vary in methods employed. However, there appears to be a consensus that

methods should include a variety of diagnostic and evaluative management techniques, and that the basic components of the approach should be tailored to the client organization.

It is beyond the scope of this paper to determine whether management auditing is needed in the Marine Corps, or whether present organizational performance evaluation and improvement practices and procedures are, or will be, sufficient. Since OMU is already experienced in personnel research, it seems logical to examine the management audit as a possible extension of the task analysis mission and thus to include other areas of importance and value to the Marine Corps.

SECTION II

ANNOTATIONS FROM SELECTED LITERATURE ON MANAGEMENT AUDITING

A. DETAILED ANNOTATION, by chapter

Leonard, William P., THE MANAGEMENT AUDIT, Englewood Cliffs: Prentice-Hall Inc., 1962.

Chapter I Introduction

The environment which has created the need for new and innovative approaches to management is discussed. Its key elements, as well as the problems, opportunities, responsibilities, and demands these have created for management, primarily in the area of decision-making, are identified, as is the future role of the management audit.

Chapter II Basic Elements of Management

Leonard examines those elements of management--planning, organization, and direction--which he believes should be thoroughly understood by anyone charged with organizing and implementing an effective management audit. Direction is separated into command, coordination, and control. Leonard explores the factor of control, as it is supplemented with the evaluation and appraisal provided by the management audit, in dealing with the six most common causes of poor management.

Chapter III Appraisal of Management Methods and Performance

The management audit is defined as a comprehensive and constructive examination of an organization and its plans, objectives, policies, means of operation, and utilization of facilities. Use of the management audit as a preventive

measure designed to protect an organization from poor management is stressed. Leonard emphasizes that the auditor employs a scientific approach entailing the gathering of accurate information about the present condition of the organization, comparison of these data to organizational plans, policies and performance, and offers sound recommendations for improvement.

Chapter IV Fundamental Concepts of Management Audits

This chapter first addresses the question of the scope of the audit. Should it be of a specific function? Of an entire department? Of a group of departments? The entire organization? Leonard then presents the seven factors which should be reviewed, analyzed, and appraised by the audit: 1) plans and objectives, 2) organizational structure, 3) policies and practices, 4) systems and procedures, 5) methods of control, 6) means of operation, and 7) human and physical facilities. These are discussed in depth, and the author suggests what the auditor should look for in relation to each factor.

Chapter IV Figure 2

A graphic illustration of a management audit design is presented. The diagram shows the audit divided into its four major components--examination, evaluation and appraisal, presentation, follow-up, and their subdivisions.

Chapter V Organizing a Program for the Management Audit

Basic considerations in setting up the audit program are

discussed. The need for the audit staff to have the complete understanding, approval, and support of management is emphasized, along with the following elements of the audit design: a) the selection of qualified personnel to perform the work, b) the procedure for work accomplishment, c) the establishment of an audit staff training program, and d) the control of time and cost. The proper handling of audit findings and a sample program outline covering the factors discussed in Chapter IV are also examined.

Chapter VI Initiating the Management Audit

The importance of planning prior to the start of the management audit is emphasized, with particular attention being given to the auditor's preliminary analysis of the areas and functions to be audited. Interviewing techniques are discussed, and the value of the audit program and systematic methods of audit procedure are stressed.

Chapter VII Analysis, Interpretation, and Synthesis

Focus is on the utilization of scientific analysis in management auditing, with Leonard presenting 10 important steps in scientific analysis: 1) a study of the elements, 2) a detailed diagnosis, 3) determination of purpose and relationship, 4) a search for deficiencies, 5) an analytical balance, 6) a test for effectiveness, 7) a search for problems, 8) obtaining solutions, 9) determination of alternatives, and 10) seeking out methods for improvement. The end results of

this analysis--improvements in methods, greater effectiveness in performance, or recommended solutions to problems--are also discussed.

Chapter VIII Gathering and Recording Information

After formulating the audit program and completing a preliminary analysis, the auditor is ready to implement his plan for gathering and recording information. Basic considerations in organizing and recording data, as well as the tools and techniques used in this process, are presented. Several hints for gathering information, a brief discussion of the importance of maintaining work papers, and an example of a management audit check-list for use by the auditor when examining one department within an organization are also included.

Chapter IX Measuring Performance

Leonard provides a description of how performance is measured in an organization--by comparing results with standards. Discussion follows regarding the various ways in which standards can be established, the importance of standards in measuring performance, and the use of standards in measuring the performance of an organization in such areas as internal control, efficiency, future planning, and coordination.

Chapter X Difficulties Generally Encountered

Some of the problems commonly encountered by the management auditor are examined. Leonard describes three classes of

of executive personnel: those who "do nothing", those who "intend to do", and those who "get going". Also considered are inter-personal problems, and what Leonard calls "too-much-too-soon", or the problem of auditors' unrealistic demands for the accomplishment of improvements.

Chapter XI Evaluating Executive Effectiveness

The author offers guidelines for the evaluation of the executive. A sample of a statement of function and responsibility, a comprehensive list of executive characteristics, and guides for areas of review and executive evaluation are included. Leonard also discusses the need to consider the nature of the organization in which the individual being evaluated works, as this will have a significant effect upon the establishment of evaluation criteria.

Chapter XII Developing and Recommending Improvements

The author considers the "real test of the auditor" to be his ability to develop and recommend improvements. A cautious approach to making recommendations and a constant concern for their potential impact in terms of cost and efficiency are emphasized. The importance of time and study in developing recommendations, and traps into which auditors may fall, are also discussed.

Chapter XIII Preparing the Management Audit Report

Suggestions on report content, organization, writing style,

and a sample audit report outline are given. Leonard describes different reports used by management audit groups, and he discusses presenting recommendations for improvements so as to enhance the likelihood of their acceptance.

Chapter XIV Facts of Major Importance

That part of the audit report entitled "Facts of Major Importance" alerts management to unfavorable conditions. Inducing management to read the entire audit report is discussed. Suggestions on gathering, analyzing, and presenting the "facts" are offered, and samples are included.

Chapter XV Reviewing Audit Findings with those Concerned

Consideration is given to the auditor's presentation of his findings and recommendations to top management of the organization. Leonard presents several basic considerations in planning the conference format, and he outlines the auditor's role as a conference leader. Included are ideas on guiding discussion, dealing with people in a conference situation, the auditor's role in stimulating corrective action by management, and achieving acceptance of recommendations.

Chapter XVI The Final Written Report

The final arrangement of the audit report is presented. The sections, in order, are:

- Opening Paragraph
- Facts of Major Importance

- Matters Discussed with Supervision
- Current Practices
- Discussion or Comments
- Recommendations and Exhibits

A check-list of questions which the auditor should ask himself as he makes a final review of his report is included, along with some generally accepted rules on preparation and transmission of the report.

Chapter XVII The Audit Follow-up

The objective of the audit follow-up is the completion of unfinished matters relating to recommendations made in the audit report which have not been acted upon. The author cites examples of what the auditor may encounter in the course of his follow-up.

Chapter XVIII Looking Ahead

The closing chapter contains an overview of the responsibilities of management auditing--which organizations will have to utilize in order to meet the demands of the future.

B. BRIEF ANNOTATIONS

1. Greenwood, William T., A MANAGEMENT AUDIT SYSTEM, rev. ed., Carbondale, Illinois: School of Business, Southern Illinois University, 1967.

Greenwood presents a management audit plan that is divided into two parts--1) the management function audit, and 2) the management decision audit. The first of these is designed to evaluate the areas of planning, organizing, staffing, directing, and controlling. The second is concerned with evaluating the quality of decisions affecting, for example, long-range and organization-wide planning, operations, and personnel. A total of 373 questions, 170 for use in auditing management functions and 203 for decision auditing, are presented for use in analyzing an organization's management.

2. Rose, T.G., THE MANAGEMENT AUDIT, London: Gee & Co., (Publishers) Limited, 1961.

Rose sets out basic procedures for the management auditor to follow. The relationship of the board of directors to the managing director of an organization, as well as the role of the management audit in providing information needed to make policy decisions, are discussed. A management audit outline is provided, along with a detailed discussion of the seven primary functions of management to be examined by the auditor: 1) general management, 2) personnel and industrial relations, 3) legal and secretarial, 4) accounts and finance, 5) development, 6) distribution, and 7) production. A top-to-bottom approach to the audit is emphasized, with the auditor making a

thorough study of the organization's structure before proceeding to an examination of the general management.

3. Martindell, Jackson, "The Management Audit", PROCEEDINGS OF THE ANNUAL MEETING, ACADEMY OF MANAGEMENT, 1962, pp. 164-171.

A discussion of the management audit developed by the American Institute of Management is presented, along with explanations of the ten categories covered by such an audit: 1) economic function, 2) corporation structure, 3) health of earnings, 4) service to stockholders, 5) research and development, 6) directorate analysis, 7) fiscal policies, 8) production efficiency, 9) sales vigor, and 10) executive evaluation.

4. Miller, Ernest O., "The Personnel Audit: Gateway to the Future", PERSONNEL JOURNAL, September, 1961, pp. 1-8.

The audit of the personnel function of a small company is examined. Discussed in detail are the two phases of the audit which were completed--analysis of current activities of the personnel department and a survey of opinions of management on the personnel function and its activities--the methods used in completing these phases, and the recommendations which resulted from them.

SECTION III

ADDITIONAL SELECTED REFERENCES

A. BOOKS

1. Ferguson, Charles R., MEASURING CORPORATE STRATEGY, Homewood, Illinois: Dow Jones-Irwin, Inc., 1974.

2. Goetz, B.E., MANAGEMENT PLANNING AND CONTROL, New York: McGraw-Hill Book Co., Inc., 1949.

3. Greenwood, William T., BUSINESS POLICY: A MANAGEMENT AUDIT APPROACH, New York: The Macmillan Company, 1967.

4. _____. MANAGEMENT AND ORGANIZATIONAL BEHAVIOR THEORIES: AN INTERDISCIPLINARY APPROACH, Cincinnati, Ohio: South-Western Publishing Company, 1965.

5. _____. THE SCIENTIFIC APPRAISAL OF MANAGEMENT, New York: Harper & Row, Publishers, Incorporated, 1950.

6. Luck, T.J., PERSONNEL AUDIT AND APPRAISAL, New York: McGraw-Hill Book Co., 1955.

7. Martindell, Jackson W., THE APPRAISAL OF MANAGEMENT, New York: Harper & Brothers, 1962.

B. PERIODICALS

1. Burton, John C., "Management Auditing", THE JOURNAL OF ACCOUNTANCY, May, 1968, pp. 41-46.

2. Dares, M.B., "Relationship of Management Auditing to Decision Making", THE INTERNAL AUDITOR, March, 1956, pp. 33-43.

3. Hamilton, W.T., "Appraising Operating Performance", THE INTERNAL AUDITOR, June, 1954, pp. 6-13.

4. McFarlan, F. Warren, "Management Audit of the EDP Department", THE HARVARD BUSINESS REVIEW, May, 1973, pp. 131-142.

5. Mintz, F.E., "Operational Auditing", THE INTERNAL AUDITOR, June, 1954, pp. 32-45.

6. Ratliff, E.F., "Extending Auditing into Operations", THE INTERNAL AUDITOR, September, 1954, pp. 7-15.

7. Wilson, A.P., "The Management Audit Comes of Age", THE CONTROLLER, September, 1950.

DISTRIBUTION LIST

Navy

4 Dr. Marshall J. Farr, Director
Personnel and Training Research Programs
Office of Naval Research (Code 458)
Arlington, VA 22217

1 ONR Branch Office
495 Summer Street
Boston, MA 02210
ATTN: Dr. James Lester

1 ONR Branch Office
1030 East Green Street
Pasadena, CA 91101
ATTN: Dr. Eugene Gloye

1 ONR Branch Office
536 South Clark Street
Chicago, IL 60605
ATTN: Dr. Charles E. Davis

1 Dr. M.A. Bertin, Scientific Director
Office of Naval Research
Scientific Liaison Group/Tokyo
American Embassy
APO San Francisco 96503

1 Office of Naval Research
Code 200
Arlington, VA 22217

6 Director
Naval Research Laboratory
Code 2627
Washington, DC 20390

1 Technical Director
Navy Personnel Research and
Development Center
San Diego, CA 92152

1 Assistant Deputy Chief of Naval
Personnel for Retention Analysis
and Coordination (Pers 12)
Room 2403, Arlington Annex
Washington, DC 20370

1 LCDR Charles J. Theisen, Jr.,
MSC, USN
4024
Naval Air Development Center
Warminster, PA 18974

1 Dr. Lee Miller
Naval Air Systems Command
AIR-413E
Washington, DC 20361

1 Commanding Officer
U.S. Naval Amphibious School
Coronado, CA 92155

1 Chairman
Behavioral Science Department
Naval Command & Management Division
U.S. Naval Academy
Annapolis, MD 21402

1 Chief of Naval Education & Training
Naval Air Station
Pensacola, FL 32508
ATTN: CAPT Bruce Stone, USN

1 Mr. Arnold I. Rubinstein
Human Resources Program Manager
Naval Material Command (0344)
Room 1044, Crystal Plaza #5
Washington, DC 20360

1 Dr. Jack R. Borsting
U.S. Naval Postgraduate School
Department of Operations Research
Monterey, CA 93940

1 Director, Navy Occupational Task
Analysis Program (NOTAP)
Navy Personnel Program Support
Activity
Building 1304, Bolling AFB
Washington, DC 20336

1 Office of Civilian Manpower Management
Code 64
Washington, DC 20390
ATTN: Dr. Richard J. Niehaus

1 Chief of Naval Reserve
Code 3055
New Orleans, LA 70146

1 Chief of Naval Operations
OP-987P7
Washington, DC 20350
ATTN: CAPT H.J.M. Connery

1 Superintendent
Naval Postgraduate School
Monterey, CA 93940
ATTN: Library (Code 2124)

1 Mr. George N. Graine
Naval Sea Systems Command
SEA 047C12
Washington, DC 20362

1 Chief of Naval Technical Training
Naval Air Station Memphis (75)
Millington, TN 38054
ATTN: Dr. Norman J. Kerr

1 Principal Civilian Advisor
for Education and Training
Naval Training Command, Code 00A
Pensacola, FL 32508
ATTN: Dr. William L. Maloy

1 Director
Training Analysis & Evaluation Group
Code N-00t
Department of the Navy
Orlando, FL 32813
ATTN: Dr. Alfred F. Smode

1 Chief of Naval Training Support
Code N-21
Building 45
Naval Air Station
Pensacola, FL 32508

1 Navy Personnel Research
and Development Center
Code 01
San Diego, CA 92152

5 Navy Personnel Research
and Development Center
Code 02
San Diego, CA 92152
ATTN: A.A. Sjoholm

2 Navy Personnel Research
and Development Center
Code 306
San Diego, CA 92152
ATTN: Dr. J.H. Steinemann

2 Navy Personnel Research
and Development Center
Code 309
San Diego, CA 92152
ATTN: Mr. R.P. Thorpe

1 Navy Personnel Research
and Development Center
San Diego, CA 92152
ATTN: Library

Army

1 Technical Director
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Armed Forces Staff College
Norfolk, VA 23511
ATTN: Library

1 Commandant
U.S. Army Infantry School
Fort Benning, GA 31905
ATTN: ATSH-DET

1 Deputy Commander
U.S. Army Institute of Administration
Fort Benjamin Harrison, IN 46216
ATTN: EA

1 Dr. Stanley L. Cohen
U.S. Army Research Institute for
the Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Dr. Ralph Dusek
U.S. Army Research Institute for the Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 HQ USAREUR & 7th Army
ODCSOPS
USAREUR Director of GED
APO New York 09403

1 ARI Field Unit - Leavenworth
Post Office Box 3122
Fort Leavenworth, KS 66027

1 Dr. Milton S. Katz, Chief
Individual Training & Performance Evaluation
U.S. Army Research Institute for the Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

Air Force

1 Research Branch
AF/DPMYAR
Randolph AFB, TX 78148

1 Dr. G.A. Eckstrand (AFHRL/AST)
Wright-Patterson AFB
Ohio 45433

1 AFHRL/DOJN
Stop #63
Lackland AFB, TX 78236

1 Dr. Martin Rockway (AFHRL/TT)
Lowry AFB
Colorado 80230

1 Dr. Alfred R. Fregly
AFOSR/NL
1400 Wilson Boulevard
Arlington, VA 22209

1 Dr. Sylvia R. Mayer (MCIT)
Headquarters Electronic Systems Division
LG Hanscom Field
Bedford, MA 01730

1 AFHRL/PED
Stop #63
Lackland AFB, TX 78236

Marine Corps

23 Commandant of the Marine Corps (Code R)
Headquarters, United States Marine Corps
Washington, DC 20380

Coast Guard

1 Mr. Joseph J. Cowan, Chief
Psychological Research Branch (G-P-1/62)
U.S. Coast Guard Headquarters
Washington, DC 20590

Other DOD

1 Military Assistant for Human Resources
Office of the Secretary of Defense
Room 3D129, Pentagon
Washington, DC 20301

12 Defense Documentation Center
Cameron Station, Building 5
Alexandria, VA 22314
ATTN: TC

Other Government

1 Dr. Lorraine D. Eyde
Personnel Research and Development Center
U.S. Civil Service Commission
1900 E Street, N.W.
Washington, DC 20415

1 Dr. William Gorham, Director
Personnel Research and Development Center
U.S. Civil Service Commission
1900 E Street, N.W.
Washington, DC 20415

1 U.S. Civil Service Commission
Federal Office Building
Chicago Regional Staff Division
Regional Psychologist
230 South Dearborn Street
Chicago, IL 60604
ATTN: C.S. Winiewicz

Miscellaneous

1 Dr. Gerald V. Barrett
University of Akron
Department of Psychology
Akron, OH 44325

1 Dr. Bernard M. Bass
University of Rochester
Graduate School of Management
Rochester, NY 14627

1 Dr. A. Charnes
BEB 512
University of Texas
Austin, TX 78712

1 Dr. Rene' V. Dawis
University of Minnesota
Department of Psychology
Minneapolis, MN 55455

1 Dr. Robert Dubin
University of California
Graduate School of Administration
Irvine, CA 92664

1 Dr. Marvin D. Dunnette
University of Minnesota
Department of Psychology
Minneapolis, MN 55455

1 ERIC
Processing and Reference Facility
4833 Rugby Avenue
Bethesda, MD 20014

1 Dr. Edwin A. Fleishman
Visiting Professor
University of California
Graduate School of Administration
Irvine, CA 92664

1 Dr. M.D. Havron
Human Sciences Research, Inc.
7710 Old Spring House Road
West Gate Industrial Park
McLean, VA 22101

1 HumRRO Central Division
400 Plaza Building
Pace Boulevard at Fairfield Drive
Pensacola, FL 32505

1 HumRRO/Western Division
27857 Berwick Drive
Carmel, CA 93921
ATTN: Library

1 HumRRO Central Division/Columbus Office
Suite 23, 2601 Cross Country Drive
Columbus, GA 31906

1 HumRRO/ Western Division
27857 Berwick Drive
Carmel, CA 93921
ATTN: Dr. Robert Vineberg

1 Dr. Lawrence B. Johnson
Lawrence Johnson & Associates, Inc.
2001 S Street, N.W., Suite 502
Washington, DC 20009

1 Dr. Ernest J. McCormick
Purdue University
Department of Psychological Sciences
Lafayette, IN 47907

1 Dr. Lyman W. Porter, Dean
University of California
Graduate School of Administration
Irvine, CA 92650

1 Dr. Joseph W. Rigney
University of Southern California
Behavioral Technology Laboratories
3717 South Grand
Los Angeles, CA 90007

1 Dr. George E. Rowland
Rowland and Company, Inc.
P.O. Box 61
Haddonfield, NJ 08033

1 Dr. Benjamin Schneider
University of Maryland
Department of Psychology
College Park, MD 20742

1 Dr. Arthur L. Siegel
Applied Psychological Services
404 East Lancaster Avenue
Wayne, PA 19087

1 Mr. George Wheaton
American Institutes for Research
3301 New Mexico Avenue, N.W.
Washington, DC 20016

CR 007 821